

Studies in *Cladiscus* and allied Genera (Col.)

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(38th Communication on Cleridae)

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with two plates

Gorham was very right in saying (Ann. Soc. Ent. Belg. XLVII, 1903, p. 332) that the study in *Cladisci* is beset with difficulties. This is partly due to the great rarity of all species; series occur seldom, and many species have been described on single individuals. Moreover the species show a strong sexual dimorphism in the antennae, those of the males being pectinate, bipectinate or even flabellate or biflabellate, and those of the females mostly simply serrate or lightly pectinate, and this dimorphism has but rarely been realised. Gorham, in one instance (*Cl. dispar*, Ann. Soc. Ent. Belg. XLVII, 1903, p. 332) was aware of this dimorphism, only he mistook one sex for the other. Also Lesne, in his description of *Cladiscus dimorphus* Lesne, has recognized the sexual dimorphy.

For a correct distinction of the species it is necessary to determine the sexes first, which is not particularly difficult, as the penultimate sternite in the females is mostly distinctly emarginate, whereas in the males its hind border is straight or very lightly emarginate.

It seems obvious and practical to distinguish five rather allied genera. One of these, *Diplophorus*, was described by Heller (Philipp. Journ. of Sci. XIX-5, 1921 (1922), p. 530), another, *Gracilotillus*, by Pic (Mél. exot.-ent. LXII, 1933, p. 16) as a subgenus of *Tillus* Ol. Two new genera are described below: *Orthocladiscus*, nov. gen. and *Egenocladiscus*, nov. gen.

We have tried to construct analytical keys for the species of each genus. As there are many species which we do not know de visu, we had to depend on the descriptions, which often were not so detailed as we could have wished. Therefore we must claim some indulgence for those keys, which still may be of some use, we hope.

We have left out the species described from Africa and Madagascar, of which we have not seen a single specimen, and which probably will be found ultimately to belong to some other genus or genera. These are: *Cladiscus cyaneus* Hintz (1902, Usambara), *C. gracilicornis* Pic (1932, Stanley Falls), *C. Perrieri* Fairm. (1903, Madagascar), *C. pretiosus* Kuw. (1893, Congo), *C. rugosus* Waterh. (1879, Madagascar) and *C. Seyrigi* Pic (1949, Mada-

gascar). The latter has been removed by Pic himself (Ech. LXV-517, 1949, p. 11) to his new genus *Cladiscopallenis*.

The TYPES of all the new species described in this paper, are in the Amsterdam Museum.

The five genera can be distinguished as follows:

— Antennae in the ♂♂ serrate or flabellate (by way of exception seemingly biflabellate, but then the antennae are much more slender than in *Orthocladiscus*): in (so far) one species the amplifications of the antennal segments are not pointed but rounded; in the ♀♀ the antennae are always narrow, slightly serrate. Head and prothorax in both sexes of the same form; eyes in the ♂♂ slightly more prominent than in the ♀♀. Hind tibiae not swollen. Genus *Cladiscus* Chevr.

— Antennae in the ♂♂ bipectinate or biramose, in the ♀♀ broad and flat, strongly serrate or pectinate. Ultimate segment of labial palpi narrowly securiform or more cylindrical. Head, and as a rule the prothorax also, in the ♂♂ narrower than in the ♀♀, with the eyes broader than prothorax, but the eyes are in the ♂♂ much more prominent than in the ♀♀. Hind tibiae not swollen. Genus *Orthocladiscus*, nov. gen.

— Antennae in the ♂♂ strongly biramose (♀♀ hitherto unknown). Terminal segment of labial palpi narrowly securiform to cylindrical. Eyes strongly prominent. Prothorax as long as broad, or a little longer, very-strongly strangulate near the base, anterior portion rounded at the sides and very strongly convex. Hind tibiae (in the ♂♂ only??) strongly swollen. Genus *Diplophorus* Heller

— Antennae in the ♂♂ serrate from third segment on; in the ♀♀ narrow, near the base slightly serrate, the last segments not serrate, relatively narrow, broadened and compact. Terminal segment of palpi narrowly securiform. Fore part of prothorax broad, convex, rounded at the sides. Head narrower or (with the eyes) slightly broader than prothorax. Genus *Gracilotillus* Pic

— Antennae in the ♀ (♂ hitherto unknown) filiform, not serrate nor pectinate. Ultimate segment of labial palpi narrowly cylindrical-securiform. Eyes very strongly prominent. Genus *Egenocladiscus* nov. gen.

Genus *Gracilotillus* Pic 1933

The type of the genus is *Tillus semicyaneus* Pic (Mél. exot.-ent. LXII, 1933, p. 16); further we bring to it *Cladiscus cribricollis* Schenklg. (Ent. Mitt. IV-4/6, 1915, p. 108) from Tonkin, *Cladiscus fasciatus* Schenklg. (Deutsche Ent. Zeitschr. 1908, p. 362) from India and Himalayas, *Tillus luteofasciatus* Pic (Ech. XLII-423, 1926, hors-texte p. 21) from Tonkin, and one new species, described below.

Gracilotillus *Vitalisi* nov. spec.

♀ (*mas latet*). *Modice elongatus*; *caput cum oculis modice prominentibus tantum paullo latior quam prothorax ante*. *Latitudo*

maxima prothoracis leviter angustior quam elytra ad basin; usque ad constrictionem paullo longior quam latus, ab margine antico dilatatus, deinde rotundato-attenuatus versus constrictionem. Caput prothoraxque confluentur punctatum, ideoque non refulgens. Elytra modice elongata; usque ad septimam partem apicalem punctorum crassiorum rotundatorum striis ornata; interstitiis angustioribus quam striae ipsae, leviter convexis; punctatio in septima parte apicali modice crassa, densa; apices conjuncte rotundati. Caput osque nigrum, palpi flavescentes. Prothorax niger; ad basin usque ad constrictionem supra et infra ruber; scutellum rubrum. Elytrorum $\frac{2}{5}$ pars basalis rubra; $\frac{3}{5}$ pars apicalis nigra, fascia lata transversa albidula ornata. Corpus subtile rubrum, abdomen brunneo-nigrum. Antennae rubrescentes, segmentum sextum ad decimum brunneum, segmentum ultimum denuo laetior; pedes rubentes, tarsi brunnei, ungues testacei. Pilositas in capite parteque anteriore prothoracis longa, suberecta, brunnescens; in elytris brevior, flava; in pedibus longa, suberecta, flava.

♀ (male unknown). — Body rather elongate, head with the moderately prominent eyes a trifle broader than the fore margin of the prothorax; greatest width of the prothorax a little less than the width of the elytra at their base; behind the fore margin the prothorax is broadened and then roundedly narrowing towards the constriction; head and prothorax chagrined, confluent punctate and hence rather lack-lustre; elytra rather elongate, with longitudinal series of coarse, rounded punctures to $\frac{6}{7}$ of their length, their interstices somewhat narrower than the punctate striae; apical part of elytra rather coarsely and densely punctate; tips conjointly rounded. Head and mouthparts black, palpi yellowish. Prothorax black with the base up to the constriction — above and below — red; scutellum and base of elytra to $\frac{2}{5}$ of their length red (cut off straight), apical $\frac{3}{5}$ black, with a broad, whiteish transversal fascia just behind the demarcation-line of red and black. Body beneath red, abdomen brownish black; antennae (Pl. 1, fig. 6) reddish, 6th to 10th segments brown, terminal segment again lighter; legs reddish, tarsi brown, claws yellowish red. Pilosity on head and fore part of prothorax long, suberect, brownish; on hind part of prothorax and on the elytra shorter, light yellow; on the legs long, suberect, light yellow. Length 9.0 millim.

HOLOTYPE: One female in the Amsterdam Museum, collected by R. Vitalis de Salvaza at Tugun Quang, Tonkin, V-1915.

Key to the species of *Gracilotillus*

1. Rows of punctures on the elytra reaching a little beyond the middle (including the light transverse fascia) 2
- Rows of punctures on the elytra reaching to near the apex (far beyond the transversal fascia) 4
2. Head and prothorax blueish black, hind margin of prothorax reddish; elytra black with a violet shine, at the base broadly reddish, behind the middle with a whiteish emarginate trans-

- verse fascia; scutellum red; antennae black, long and broad, at the base narrower; legs blackish blue. 10 millim. — Philippines *semicyaneus* Pic
- Head, prothorax, dark portion of elytra and legs black 3
3. Head black, rather coarsely punctate; prothorax red, in front blackish, down to the constriction a little broader than long; basal $\frac{2}{5}$ of elytra red, apical $\frac{3}{5}$ black with a nearly straight whiteish transverse fascia behind the middle, touching the sides and not interrupted at the suture. 8—8 $\frac{1}{2}$ millim. — Tonkin (Pl. 1, fig. 7) *luteofasciatus* Pic
- Head and prothorax black, prothorax with the base and hind parts of the sides red. Head finely punctate. Basal $\frac{1}{3}$ of elytra red, apical $\frac{2}{3}$ black with a nearly straight whiteish fascia behind the middle, not reaching the sides and interrupted by the black suture. 7 millim. — Tonkin *cribricollis* Schenklg.
4. Smaller; head black, prothorax and scutellum red, elytra black with a somewhat emarginate, light yellow transverse fascia behind the middle; legs black; antennae black with the first two segments reddish (in ab. *ruficeps* Corp. the head is red, in ab. *humeralis* Corp. the base of the elytra is red, and in ab. *inornatus* Corp. the transverse fascia is absent and the base of the elytra is narrowly red). 5—8 millim. — Western Himalayas and Northern India (Pl. 1, fig. 8, 9) *fasciatus* Schenklg.
- Larger; head black; prothorax black, at the base up to the constriction red; scutellum and basal $\frac{2}{5}$ of elytra red, apical $\frac{3}{5}$ black with a rather broad whiteish transverse fascia behind the middle; antennae reddish, darkened towards the apex; legs reddish with dark tarsi. 9 $\frac{1}{2}$ millim. — Tonkin *Vitalisi*, nov. spec.

Genus *Diplophorus* Heller 1922.

The type of the genus is *Diplophorus tumidipes* Heller (Phil. Journ. of Sci. XIX-5, 1921, p. 530); further we bring to it *Cladiscus magnificus* Schenklg. (Deutsche Ent. Zeitschr. 1908, p. 363; the locality in the description should probably be read: Matang [near Sarawak], Borneo), *Cl. Rosti* Schklg. (Deutsche Ent. Zeitschr. 1908), and another species described below:

Diplophorus transversalis, nov. spec.

Corpore niger, segmentorum ultimorum abdominis marginibus subbrunnescentibus. Prothorace suboblongo, ad basin fortiter constricto, globuloso, supra et infra rufo, in fronte margine nigro instructus. Elytra fere parallela, elongata, longitudine ad latitudinem conjunctam circiter quadruplice, nigra (rufa quarta parte basali excepta), fere ad dimidium flava fascia transversali ornata, ultima parte apicis nigrocaerulea, apicibus singulis rotundatis. Dimidia pars antica elytrorum usque ad fasciam punctorum striis ornata; interstitiis paulum convexis. Posticae partis elytrorum punctatio satis crassa et crebra, apicalis partis declivis subtilis et dispersa.

Pedibus sat robustis, tibiis posticis fortiter clavatis. Pedibus antennisque niger, unguibus flavescentibus.

Body black, last sternites brownish at the side margins and at the apices. Prothorax a little longer than broad, strongly constricted near the base, rounded in front; anterior portion strongly rounded at the sides, globularly convex with the front margin somewhat more level, above and below brownish red, the level front margin black. Elytra parallel, slightly bent inward behind the shoulders, over 3 times as long as together broad, basal fourth red, apical $\frac{3}{4}$ black with a rather narrow, slightly curved, transverse, light yellow fascia behind the middle, the downsloping apical portion blueish black. Elytra very coarsely punctured in longitudinal rows, reaching up to the yellow fascia (incl.); the interstices appearing convex. Behind the yellow fascia the elytra are punctured rather coarsely and closely, not in rows; the downsloping apical portion is punctured much more finely and dispersely. Elytra at the apex separately rounded. Legs rather robust, hind tibiae claviformly swollen towards their apices. Legs and antennae black, second antennal segment and tarsi lighter in colour, claws yellowish. (Pl. 1, fig. 10 a-d).

Length 9,3 millim.

HOLOTYPE: One male specimen in the Amsterdam Museum, from the Philippine Islands, Mount Banahao (Luzon), May 1919, W. Jarks leg.

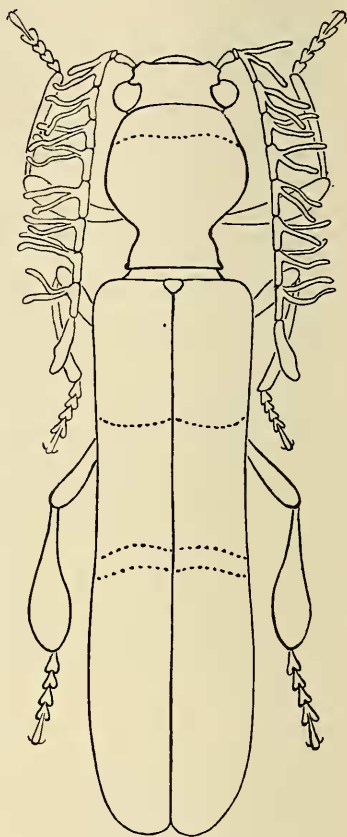


Fig. 1. *Diplophorus transversalis* nov. spec. ♂ W. F. Breurken del.

Key to the species of *Diplophorus*

1. Body dark steel-blue, hind margin of pronotum dark red; elytra reddish testaceous, 11 millim. — Luzon *tumidipes* Hell.
- Prothorax red, with the anterior border black; elytra with regular lines of punctures, which shortly before the apex suddenly cease; body beneath black, with the exception of the red

- prosternum. 8 millim. — Western Himalayas ... *Rosti* Schklg.*)
- Prothorax red, elytra with a yellow transverse fascia behind the middle 2
2. Body black, prothorax red with black front margin, apex of elytra copper-coloured, a large, round, red spot near the scutellum, behind the middle with a curved, yellowish transverse fascia, with longitudinal rows of punctures down to the fascia, interstices convex. 8 millim. — Himalayas ... *magnifica* Schklg.
- Body black, prothorax red with black front margin, apex of elytra dark steel-blue, basal $\frac{1}{4}$ of elytra red, apical $\frac{3}{4}$ black, behind the middle with a nearly straight, yellowish transversal fascia, rows of coarse punctures down to the fascia (incl.), interstices narrow, slightly convex. — Philippines
..... *transversalis*, nov. spec.

Orthocladiscus, nov. gen.

G. Cladisco affinis, sed hoc modo discrepans: antennae in maribus bipectinatae aut biramosae, in feminis serratae aut pectinatae; elytra elongatissima, recta, parallela, fortiter crasse punctato-striata usque ad ipsos apices, interstitiis subcostatis. Ungues ad basin dente forti instructi.

Very slender and elongate. Head short, oval, with the eyes broader than prothorax. Labrum in front practically straight. Eyes small, reniform, coarsely faceted, in the males larger and more protruding than in the females. Ultimate segment of labial palpi narrowly securiform to cylindrical. Antennae 11-segmented, from the third or fourth segment on in the males bipectinate or biramose, in the females strongly serrate or pectinate, broad and flat. Prothorax strongly constricted near the base; in the males narrower than in the females. Elytra very elongate, nearly parallel-sided, with several longitudinal rows of coarse punctures down to far over the middle; interstices often somewhat costate. Abdomen very slender, penultimate segment in the males practically straight, in the females distinctly emarginate. Legs slender, though not very long, hind tibiae in the males not swollen. Fore tibiae slightly curved, tarsi 5-segmented, first 3 to 4 segments bearing lamellae. Claws short, plump, with a strong tooth at the base.

Type of the genus: *Cladiscus longipennis* Westw. 1849.

This genus is closely related to *Cladiscus*; we bring to it the following species, described as such: *bipectinatus* Westw. 1852, *clavatus* Lesne 1927, *dimorphus* Lesne 1927, *dispar* Gorh. 1903, *laniger* Schklg. 1899, *lineatus* Pic 1926, *longipennis* Westw. 1849, and three new species described below.

*) We have to thank Dr H. Sachtleben for kindly examining the unique type specimen of this species in the Deutsches Entomologisches Institut. He confirmed our supposition that the hind tibiae are swollen, which character, not mentioned in Schenkling's short description, determines the place of this species in the present genus.

Orthocladiscus belgicovexillum nov. spec.

Specimen unicum ♂. *Capite prothoraceque brunneo-ruber, utroque subtiliter et disperse punctis ornato, capitis antica parte ac ore nigrescentibus, palpis flavis. Antennae in mare longe bipectinatae, ramis segmentorum mediorum longitudine ad segmentorum apud basin latitudinem amplius octuplice, totae nigrae. Elytra ad basin late dilute flava, quod restat nigra; in parte flava crasse punctorum striis ornata, in parte nigra multo levioribus, in apicem versus levissimis. Subtus pedibusque niger, unguibus lutescentibus. Nigro-pilosus, in capite prothoraceque disperse, in pedibus suberecte.*

Head and prothorax brownish red, both very dispersely and finely punctured; head in front, with the mouthparts, blackish, palpi yellowish. Antennae in the male biramose, the ramifications amply eight times as long as the width of the segments at their bases, altogether black. Elytra very elongate, parallel, apex rounded at the outside, hind margin somewhat incurvate, sutural angle distinct, slightly drawn out; for about $\frac{2}{5}$ basally light yellow, remaining portion black; the punctures in the longitudinal striae in the yellow portion deep and angular, in the black portion initially very superficial, in the apical portion only indicated by longitudinal lines; interstices narrow, regular and distinct. Scutellum dark. Underside and legs black, tarsal segments towards the apices yellowish, claws yellowish. Pubescence on head and prothorax disperse and dark, on the elytra also dark, in their apical portion a little denser and shorter, on the legs dark and suberect. — Length 12.6 millim.

HOLOTYPE: One male specimen, Brastagi, 1300 m, Sumatra's East Coast, J. B. Corporaal leg. 18-IV-1918.

The name was chosen on account of the colour pattern which presents the same succession of colours, though inverted, as the Belgian flag.

Orthocladiscus alticola nov. spec.

Capite prothoraceque rubro-brunneo, antica parte capitis, ore, prothoracis lateribus subtusque niger; caput prothoraxque subtiliter densissimeque punctis notata, palpis luteis, ad apicem versus subnigris. Antennae in mare bipectinatae, ramorum longitudine ad latitudinem apud basin quadruplice vel quintuplice, totae nigrae. Antennae in femina serratae, segmentibus adjunctibus, segmentis mediis latoribus. Elytra parallela, longissima, ad apicem singula rotundata, ad basin late dilute flava, quod restat nigra, in longitudinem profundis punctorum striis ornata; interstitiis angustis, tertio, quinto, septimo latoribus, convexis. Subtus pedibusque niger, unguibus flavescens. Pilosita flavescens, in pedibus antennisque obscura.

Head and prothorax reddish brown (the latter sometimes in the middle and at the sides blackened, this colour gradually blending into the ground colour), head in front, with the mouthparts, sides and underside of prothorax black; head and prothorax finely and very closely punctured. Palpi yellow, terminal segments blackish. Antennae in the male biramose, the ramifications about four to

five times as long as the width of the segments at their bases, altogether black. Antennae in the female serrate, the segments closely connected, median segments broadest, at the top thrice as broad as at the base. Elytra very elongate, parallel, their apices separately rounded; basal $\frac{1}{3}$ to $\frac{1}{4}$ light yellow, the remaining portion black, over whole length deeply striate-punctate, interstices narrow, third, fifth and seventh interstices a little broader and distinctly convex. Scutellum dark. Underside and legs black, only the claws yellowish. Pilosity as in the preceding species, but yellowish, on the legs and antennae dark. — Length 9,2—10,3 millim.

HOLOTYPE: ♂, Brastagi, 1300 m. Sumatra's East Coast, J. B. Corporaal leg. 14-II-1921. ALLOTYPE: ♀, same locality, J. B. Corporaal leg. 13-II-1921. PARATYPE: ♂, Gunung Singalang, 1800 m, Sumatra's West Coast, E. Jacobson leg. 1925.

The colour pattern of *O. alticola* is very similar to that of *O. belgicovexillum*; the shape of the antennae and the sculpture of the elytra, however, characterise this species distinctly.

Orthocladiscus Drescheri nov. spec.

Capite prothoraceque niger (in femina in partis brunnescentis), ore nigro, utroque (capite prothoraceque) subtiliter dense punctis notatus. Palpis brunnescentibus, ad basin lutescentibus. Antennae nigrae, in mare bipectinatae, ramis in segmentis mediis longioribus; in femina serratae; pilosita longa, suberecta, obscura. Elytra longissima, parallela, angustiora quam in specie praecedente, sordide lutea, nonnunquam ad apicem anguste nigrolimbata, apicibus singulis rotundatis. Elytra in longitudine punctorum striis aequalibus et profundis usque ad apicem instructa; interstitiis angustis, tertio, quinto, septimo latioribus, convexibus. Pilosita in elytris brevis, lutescens, ad apicem versus obscurior. Subtus pedibusque niger, unguibus flavescentibus, pilosita in pedibus longa, suberecta, obscura.

Head and prothorax black, in the ♀ intermixed with brown, head in front yellowish, mouthparts black; head and prothorax finely and closely punctured, with dark, suberect pilosity. Palpi brownish, at the base yellowish. Antennae in both sexes altogether black; in the male bipectinate, from the third segment on triangular, median segments with longer appendices, about $2\frac{1}{2}$ times as broad as long; in the female similar to those of the preceding species; pilosity on the antennae rather long, suberect, dark. Elytra parallel and very elongate, narrower and straighter than in any other species we know, of a dirty yellow, very narrowly black at the apex (in the paratype obsoletely so), separately rounded at the apices. The striae on the elytra consist of regularly placed, deep, angular punctures and run down to near the apex; interstices narrow, the third, fifth and seventh broader and distinctly convex. Pilosity on the elytra short, yellowish, towards the apices a little darker. Scutellum dark. Underside and legs black; last segment of tarsi apically and claws yellowish. Pilosity on the legs long, suberect, dark. Length 9,5—11,1 millim.

HOLOTYPE: ♂, Gunung Tangkuban Prah, 4000—5000 ft.,

Priangan, Java, F. C. Drescher leg. VIII-1934. ALLOTYPE : Same locality, VI-1936 (nr. Corp-FCD 3). PARATYPE : Same locality, IX-1933 (nr. Corp-FCD 3).

We take much pleasure in naming this very elegant and obviously very rare species after our old friend, the indefatigable and successful collector F. C. Drescher, now at Buitenzorg, Java.

Key to the species of *Orthocladiscus*

1. Head and prothorax brown or yellow, eventually the tips of the elytra or a line on the prothorax dark 2
— Colour pattern different 7
2. 3d, 5th and 7th interstices on the elytra convex 3
— All interstices similar, not distinctly convex 4
3. Prothorax with a longitudinal dark streak, head dark, ramifications of the antennae in the male connected at their bases.
— Tonkin, Laos *lineatus* Pic
— Elytra blackened at the apex, rarely altogether yellowish brown, middle and sides of prothorax and middle of head sometimes darkened, ramifications of ♂ antennae not connected at their bases. — Malabar (India), Java *bipectinatus* Westw.
4. Abdomen black, at the sides with a broad, yellow margin, upper surface dark brown, space between the eyes in front in the male very narrow, antennae with long ramae, 13—14 millim., — Laos *dimorphus* Lesne
— Abdomen altogether black, upper surface lighter, ramae of the ♂ antennae shorter 5
5. Head and prothorax bright yellowish red, elytra light yellowish brown. Narrower than related species *dispar* Gorh.
— Darker, somewhat longer and less narrow species 6
6. Head and prothorax reddish brown, elytra yellowish brown. Large, robust species, pilosity black. 15—20 millim. — North India, Himalayas *longipennis* Westw.
— Head, prothorax and elytra reddish brown, pilosity altogether brown. 14 millim. — Laos, Cochinchina. *clavatus* Lesne
7. Head and prothorax blackish brown, elytra of a dirty yellow, sometimes blackened at apex. — Java *Drescheri*, nov. spec.
— Head and prothorax red or yellowish red ; elytra black, at the base a larger or smaller portion is yellow or red 8
8. 3d, 5th and 7th interstices on the elytra distinctly carinate, basal portion of the elytra to a larger or smaller extent yellowish or reddish brown, apical portion blackish brown, no sharp separation between the two colours ; in some specimens the black colour dominates and leaves only the carinae yellowish brown. In rare cases the yellowish colour spreads, and can even extend itself to the prothorax. 10—12 millim. — Sumatra, Java (Pl. 1, fig. 3, 4, 5) *laniger* Schklg.
— 3d, 5th and 7th interstices on the elytra hardly convex. Prothorax reddish, sometimes in the middle and at the sides blackened (this colour gradually blending into the ground colour) ; basal $\frac{1}{4}$ to $\frac{1}{3}$ of the elytra yellowish, remainder black. Ramae of the

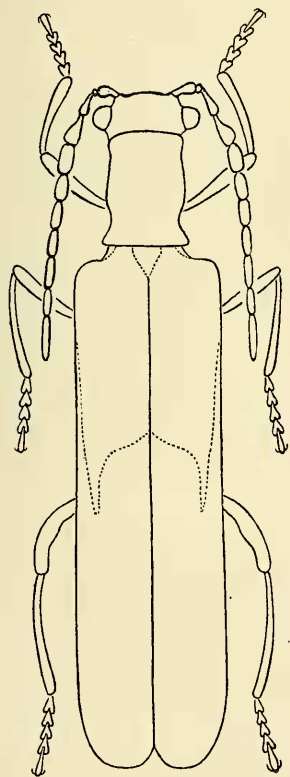
♂ antennae shorter than in the next species, width of the median segments 4 to 5 times their length. 11 millim. — Sumatra

- *alticola*, nov. spec.
 — Interstices regular, hardly elevated. Prothorax red; basal $\frac{2}{5}$ bright, pale yellow, remainder black. Ramae of antennae in the male much longer than in the preceding species, width of the median segments about eight times their length. 13 millim. — Sumatra *belgicovexillum*, nov. spec.

Egenocladiscus, nov. gen.

G. Cladisco similis, sed (in unico exemplari) femino, quod habemus) capite latiore, oculis valde prominentibus, antennis filiformibus, non serratis. Elytra elongatissima, punctato-striata usque ad ipsos apices. Ungues tarsorum ad basin dentati.

Similar in appearance to *Cladiscus*. — Very slender and elongate. Head (in the single female specimen) relatively broad, eyes farther



apart than in any *Cladiscus*. Labrum straight, rather narrow. Eyes rather strongly protruding, reniform, coarsely faceted. Ultimate joint of labial palpi securiform. Antennae filiform, not serrate nor pectinate. Prothorax narrow, constricted near the base. Elytra very elongate, nearly parallel-sided, with several longitudinal rows of punctures, extending, but growing weaker, down to near the apex; between these rows the interstices are slightly costate. Abdomen very slender; in the single female specimen the penultimate segment is slightly emarginate. Legs slender, though not very long, hind femora strongly curved. Tarsi 5-segmented, from second segment on bearing lamellae. Claws of normal shape, with a strong tooth near the base.

Type of the genus: *Egenocladiscus fragilis* nov. spec.

Egenocladiscus fragilis, nov. spec.

Singulum exemplum femininum! — Corpore niger, abdominis apice brunnescente. Caput oculis eminentibus multo latior prothorace, inter oculos orbe profundo descendens, satis crasse

Fig. 2. *Egenocladiscus fragilis* nov. spec. ♀ W. F. Breurken del.

punctatum. Elytra in tertia parte basali subflava, in longitudinem punctorum striis instructa, in apicem versus subtilioribus, interstitiis tantum paulum convexis. Palpibus omnibus flavescentibus. Pedibus brunnescentibus, tibiis posticis curvatis.

One ♀, ♂ unknown. — Body black, abdomen towards its apex dark brown. Head with the strongly protruding eyes much broader than prothorax, with a deep, round depression between the eyes, rather coarsely punctured. Prothorax $1\frac{1}{2}$ times as long as broad, constricted near the base, coarsely punctured at the sides, on the disc finely wrinkled. Elytra in basal $\frac{1}{3}$ pale yellow; this colour runs farther down at the sides, demarcation-line curved, suture yellow down to near the apex, remainder of apical part black. Elytra with longitudinal rows of punctures which grow weaker towards the apex, interstices feebly convex. Legs brownish, palpi yellowish. Hind femora curved. Length 6,0 millim.

HOLOTYPE: One female specimen in the Amsterdam Museum, from Heightsplace, 8000', Prov. Benguet, Luzon, G. Boettcher leg.

Genus *Cladiscus* Chevrolat 1843.

Heller (Phil. Journ. Sci. XIX-5, 1921 [1922], p. 532) had some inkling whether the pectinate antennae could represent a sexual character. In some species of *Cladiscus* the males have pectinate antennae; in others the antennae are serrate in the males as well as in the females. The antennae of the females are always serrate. If both sexes have serrate antennae, the serration in the females is always feebler.

In the females the penultimate abdominal sternite is always more or less distinctly emarginate; in the males its hind border is straight or very lightly incurvate (in analogy with the genera *Diplophorus*, *Orthocladiscus* and *Egenocladiscus*).

In some species the prothorax (as well as the head and the elytra) is altogether black, in others the prothorax is constantly of a bright red or at most blackened at the base only, but in a few species it can be blackish but occasionally in part reddish; such species will be inserted in the analytical key under both categories.

Cladiscus antennatus nov. spec.

♂ (*femina latet*). *Elongatissimus, caput cum oculis eminentibus in mare vix latior quam prothorax. Prothorax valde elongatus, versus constrictionem conglobato-attenuatus. Caput prothoraxque nitidum, subtilissime disperse punctatum; punctatio in capite ante densior et manifestior, in prothorace idem prope constrictionem densior et crassior. Antennae ab articulo tertio quasi bipectinatae. Elytra elongatissima, usque prope apicem punctorum subcrassorum quadratorum ornata. Caput osque rufescens, palpi nigri, palpi maxillares versus apicem flavolimbati. Prothorax rufescens, ad basin niger, ceterum corpus niger, pedes nigri, tarsorum ultimus articulus cum unguibus flavescens. Pilositas nigrescens, in prothorace longa, suberecta, procliva, in elytris breviora, retrorsa, in pedibus longa, suberecta.*

♂ (female unknown). — Very elongate species, head with the prominent eyes a little broader than the elytra at their base. Prothorax in front narrower than the head with the eyes, very elongate, towards the constriction roundedly narrowed. Head and prothorax shining, very finely and dispersely punctured, head in front more densely and more distinctly, prothorax on the constriction also more coarsely and more densely. Antennae (Pl. 2, fig. 16a—c) from the third segment on seemingly doubly pectinate, meaning that near the protruding apex of each segment a long, downwardly curved side-branch is implanted. Elytra very elongate, with rather coarse longitudinal rows of quadrangular punctures, which run down to near the apex. Head and mouth parts reddish, palpi black, maxillary palpi at the tips yellowishly margined; prothorax reddish with the base black; remaining part of the body with elytra and scutellum altogether black; legs black, last tarsal segment and claws yellowish; antennae altogether black. Pilosity blackish, on the pronotum long, suberect, directed forward; on the elytra shorter, directed backwards; on the legs long, suberect. Length 8.7 millim.

HOLOTYPE: One ♂ in the Amsterdam Museum, from Sam-singh, 1800 m, Kalimpong, Bengal, A. M. Posford leg. 24-IV-1934.

Cladiscus brastagiensis nov. spec.

Elongatissimus, caput cum oculis in femina latitudine elytrorum, in mare vix latior. Prothorax ante leviter angustior quam caput cum oculis, valde elongatus, usque ad constrictionem fortiter subglobositer attenuatus. Caput ac prothorax nitidum, subtilissime disperse punctatum; haec punctatio manifestior in capite inter oculos et in prothorace prope constrictionem. Antennarum articulus tertius ad decimus leviter serratus, in mare paullo distinctior. Elytra elongatissima, usque ad quintam partem apicalem punctorum quadratorum striis ornata, haec pars apicalis disperse punctata. Totus niger, tantum os, antennarum articulus primus et secundus, coxae, tarsorum articulus ultimus in parte testacei. Pilositas rava, in prothorace longa, suberecta, in elytris brevior, retrorsa, in pedibus longa, suberecta.

A very narrow and elongate species; head (with the eyes) in the male slightly broader than the base of the elytra, in the female of the same width. Eyes in the male a little more protruding than in the female. Prothorax at the front margin narrower than the head with the eyes (especially so in the male), very elongate, strongly and somewhat sinuously constricted towards the base. Head and prothorax shining, very finely and dispersely punctured, a little more distinctly on the head between the eyes and on the prothorax near the constriction. Antennae in both sexes weakly serrate from 3d segment on, in the male a little more distinctly than in the female. Elytra very elongate with distinct longitudinal rows of subquadrate punctures, reaching to $\frac{4}{5}$ of the length, apex of elytra dispersely punctured. Altogether deep black, with the exception of the mouth parts, the first two segments of the antennae, coxae and ultimate tarsal segments partly, which parts are testaceous. Pilosity yellowish

gray, on the prothorax long, suberect, on the elytra shorter, directed backwards, on the legs long, suberect.

Four specimens in the Amsterdam Museum, all collected by J. B. Corporaal on foliage of young, secondary jungle growth at Brastagi (Sumatra's East Coast), 1300 m.: HOLOTYPE, ♂, 6,6 millim., 15-V-1921; ALLOTYPE, ♀, 7,0 millim., 16-V-1921; PARATYPE, ♂, 5,7 millim., 16-V-1921; PARATYPE, ♀, 6,9 millim., 16-V-1921.

Cladiscus pallidicornis nov. spec.

♂ (*femina latet*). *Elongatus, caput cum oculis satis prominentibus leviter latior quam elytra ad basin. Prothorax ante paululum angustior quam caput cum oculis, elongatus, versus constrictionem in linea fere recta attenuatus. Caput prothoraxque nitidum, fere impunctatum, caput inter antennarum basin biimpressus. Antennae angustae, ab quarto articulo serratae, articulis triangularibus, apicibus acutibus. Elytra elongata, usque ad quintam partem apicalem punctorum modice crassorum striis ornata; apicibus indistincte vadositerque punctatis, recte desecatis, angulis rotundatis. Caput, os, prothorax, scutellum elytrorum basisque (tenuiter) lucide rubentes; antennae rubentiae, versus apicem brunnescentiae; oculi, corpus elytraque nigri; abdominis segmenta ad basin brunnescentia; pedes nigrae, femora brunnea; coxae, tarsorum ultimi articuli ad apicem unguisque flavescens. Pilositas in capite prothoraceque longa, obscura, procliva; in elytris obscura, retrorsa; in pedibus longa, nigra, suberecta.*

One ♂ (female unknown). — Elongate, head with the strongly prominent eyes a little broader than the elytra at their base. Prothorax in front a little narrower than the head with the eyes, elongate, towards the constriction narrowed in a nearly straight line. Head and prothorax shining, hardly punctate, head with a double impression between the bases of the antennae. Antennae (Pl. 1, fig. 15) narrow, from the 4th segment on serrate, the segments triangular with the tops acute. Elytra elongate, with rather coarse rows of punctures which reach to $\frac{4}{5}$ of their length; apical portion indistinctly and shallowly punctate, straightly cut off with rounded edges. Head, mouth parts, prothorax, scutellum, base of elytra (very narrowly) and last interstice of the elytra at the base bright reddish; antennae reddish, towards the apex (last segment) brownish; eyes and remainder of body and of elytra black; sternites brown at their base; legs black with brown femora; coxae, ultimate tarsal segments towards the top, and claws yellowish. Pilosity on head and prothorax long, dark, directed forward; on the elytra dark, directed backwards; on the legs long, black, suberect. Length 8,5 millim.

HOLOTYPE: One ♂ in the Amsterdam Museum, collected by J. Sonan and K. Miyake on Formosa, Shinchiku — 18, 1-VII-1930.

Cladiscus rossianus nov. spec.

♂ (*femina latet*). — *Elongatus, caput cum oculis mediocriter eminentibus latitudine elytrorum ad basin. Prothorax ante angustior*

quam caput cum oculis, modice elongatus, versus constrictio globositer attenuatus. In mare antennarum articulus tertius ad decimum quasi serratus; dilatationes nec acutae sed latae, ad apicem rotundatae. Capite prothoraceque nitidis; punctatio in prothorace subtilissima et dispersa, in partem anticam prothoracis paullo densior; in capite crassior et in vertice densior. Elytra elongata, usque ad quintam partem apicalem punctorum modice crassorum quadratorum striis ornata; punctatio in quinta parte apicali satis subtilis et denso. Caput cum os, palpi, thorax scutellumque totis rubentes, ceterum corpus niger, pedibus nigris, coxae unguesque flavescens. Pilositas in capite prothoraceque modice longa, flavescens, procliva, in elytris nigrescens, retrorsa, in pedibus longa, nigrescens, suberecta.

Two male specimens (female unknown). — Elongate, head with the moderately protruding eyes about as wide as the base of the elytra. Front of prothorax narrower than the head with the eyes, prothorax rather elongate, towards the constriction roundedly attenuated. Antennae from 3d segment on serrate; the projecting sides of the segments not acute as in all other known species, but broad and rounded at the apices (Pl. 1, fig. 11). Head and prothorax shining; punctuation on prothorax very fine and disperse, in front a little denser; on the head somewhat coarser and especially on the vertex denser. Elytra elongate, with rather coarse, longitudinal rows of subquadrate punctures, which occupy $\frac{4}{5}$ of the length; apex of elytra rather finely and densely punctate. Head with mouth parts, palpi, prothorax and remaining parts of the body black, coxae and claws yellowish. Pilosity on head and prothorax rather long, yellowish, directed forward, on the elytra blackish, directed backwards; on the legs long, blackish, suberect.

Two specimens, both from Maffin Bay in Netherlands New Guinea, collected by Mr. E. C. Ross.

HOLOTYPE, ♂, in The Science Museum, California Acad. of Sci., San Francisco, X-1944, 8.2 millim. PARATYPE, ♂, in the Amsterdam Museum, VI-1944, 8.8 millim.

Cladiscus yunnanus nov. spec.

♂ (*femina latet*). — *Elongatus, caput cum oculis modice prominentibus leviter latius quam elytrae ad basin. Prothorax ante tantum paululum angustior quam caput cum oculis, elongatus, versus constrictionem in linea fere recta attenuatus. Caput prothoraxque nitidum, sat densiter sat fortiter punctatum, clypeus leviter emarginatus et incrassatus, caput inter oculos impressum ignavum instructum. Antennae angustae, ab quarto articulo serratae; articuli fere angustiter trianguli, apicibus subrotundatis. Elytra elongata, usque ad quartam partem apicalem punctato-lineata; apicibus subtiliter, dispersiter vadositerque punctatibus, conjuncte rotundatibus. Caput, os, prothorax scutellumque tota lucide rubentum; palpi brunnescenti; oculi, ceterum corpus elytraque nigri; pedes nigri, femora brunnea; coxae, tarsorum ultimi articuli unguisque flavescens. Pilositas in capite prothoraceque sat longa, brunnescens, procliva; in elytris flavescens, retrorsa; in pedibus longa, brunnescens, suberecta.*

One ♂ (female unknown). — Elongate, head with the moderately prominent eyes a little broader than the elytra at their base. Prothorax in front only a trifle narrower than the head with the eyes, elongate, towards the constriction narrowed in a nearly straight line. Head and prothorax shining, rather densely and fairly strongly punctate, punctuation in front part of the head a little denser, clypeus in front somewhat emarginate and swollen, head between the eyes with a faintly indicated impression. Antennae narrow, from the 4th segment on serrate, the segments rather narrowly triangulate, prominent part of their apices somewhat rounded. Elytra elongate with rather coarse rows of punctures which reach to $\frac{3}{4}$ of their length; apical portion finely, dispersely and shallowly punctate, conjointly rounded. Head, mouth parts, prothorax and scutellum altogether bright reddish, palpi brownish; eyes, remainder of body and elytra black; legs black with brown femora; coxae, ultimate tarsal segments and claws yellowish. Pilosity on head and prothorax moderately long, brownish, directed forward; on the elytra shorter, yellowish, directed backwards; on the legs long, brownish, suberect. Length 5.0 millim.

HOLOTYPE: One ♂ in the Amsterdam Museum, from China, Prov. Yunnan, valley of the Soling-ho, obtained some years ago from L. Mader, ex coll. F. Hauser.

Key to the species of *Cladiscus*

1. Altogether yellow or brown 2
- Yellow or brown, elytra darkened towards the apex 3
- Black, elytra brown (antennae in the ♂ pectinate). 10 millim.
— India: Shembaganur *Heynei* Schenklg.
- Differently coloured 8
2. Testaceous, small species. $7\frac{2}{3}$ millim. (described as a *Pallenis*,
but evidently rather a *Cladiscus*). India or.
..... *fulvescens* Chev.
- Antennae in the ♂ long pectinate, head and prothorax reddish,
elytra brown. 12 millim. — East India *Prinsepi* White
- Antennae long pectinate (♂) or serrate (♀) upper surface
reddish. 9—13 millim. — Laos *laotianus* Lesne
3. On the pronotum behind a longitudinal groove, upper surface
brown, apical $\frac{1}{5}$ of elytra black. $11\frac{1}{2}$ millim. — Philippines ...
..... *Bakeri* Chapin
- No longitudinal groove on pronotum 4
4. Size 11—12 millim. 5
- Size 8—10 millim. 6
5. Upper surface reddish brown, apex of elytra blackish. 12 millim.
(Antennae serrate). — India *parrianus* Westw.
- Upper surface reddish brown, apical half and suture of elytra
blackish. 10—12 millim. (Antennae pectinate). — North India
..... *gracilis* White
(Presumably *C. gracilis* White is the ♂ and *C. parrianus*
Westw. the ♀ of one and the same species).

6. Eyes very large, front narrow, upper surface reddish brown, apex of elytra black. 9 millim. — Formosa *terminalis* Schenkling.
- Eyes not so large 7
7. Antennae hardly longer than head and prothorax together, pronotum very finely and dispersely punctate, upper surface testaceous, apical third of elytra blackish. Antennae in the ♂ pectinate. 10 millim. — India : Madura *madurensis* Pic
- Antennae much longer than head and prothorax together, pronotum finely punctate, at the sides densely and wrinkly, colour as in the preceding species. Antennae in the ♂ pectinate. 8 millim. — Philippines *bicolor* Chapin
8. Upper surface altogether black or dark brown, sometimes the prothorax is blackish with the sides lighter ; elytra in some species with a transverse light fascia 9
- Upper surface black or red, prothorax reddish, sometimes darkened at the base or in the middle, elytra black, sometimes dark brown 14
9. Male antennae pectinate, female antennae serrate, more strongly so than in the next category 10
- Male antennae serrate, somewhat more strongly than in the ♀ ♀, females with the antennae feebler serrate than in the preceding category 12
10. Upper surface black, elytra with a whiteish transversal fascia just behind the middle. 6 millim. — India or. *hindostanus* Chev.
- Elytra without light fascia 11
11. Larger species, first two antennal segments altogether or partly reddish. 10 millim. — Philippines (also Java and India) (nec *strangulatus* Kiesw. 1874) *strangulatus* Chev. 1843 *)
- Smaller, antennae altogether black. 7 millim. — China *ater* Pic
12. Larger species, upper surface altogether black, head and prothorax very finely and dispersely punctate, median segments of antennae longer than broad. $6\frac{1}{2}$ — $7\frac{1}{2}$ millim. — Sumatra *brastagiensis* nov. spec.
- Smaller species, prothorax often partially red, punctuation on head and prothorax more evident ; median segments of antennae broader than long. 6 — $6\frac{1}{2}$ millim. 13
13. Head and prothorax rather finely and densely punctate, punctuation towards the anterior margin and towards the sides of the pronotum somewhat denser and coarser. Elytra black, with or without red humeral spot. Prothorax sometimes reddish with black base (see also the species with red prothorax : sub 14). 6 — $6\frac{1}{2}$ millim. — Burma (according to Schenkling also in Yunnan and Manipur) *attenuatus* Gorb.

*) It is highly probable that *Cladiscus nitidus* Pic (Mél. exot.-ent. LX, 1932. p. 9), of which we have not seen a specimen, simply represents the female of *C. strangulatus* Chev., to which Pic himself declares his species to be related, only differing in the antennae.

- Punctuation on head and prothorax rather coarse and rather disperse. Described as altogether black, but often head and prothorax are reddish (see also the species with red prothorax : sub 14). $6\frac{1}{2}$ millim. — Philippines *bacillus* Heller
- 14. Antennae of ♂ seemingly bipectinate 15
- Antennae of ♂ flabellate 17
- Antennae of ♂ serrate, protruding edges acute 21
- Antennae of ♂ serrate, protruding edges broad and rounded 16
- 15. Head and prothorax bright red, scutellum red, elytra black with red humeral spots and base. $8-8\frac{1}{2}$ millim. — India (not America!) (Pl. 2, fig. 17, 18) *pectinicornis* Klug
- Head and prothorax dark red, base of prothorax darkened, elytra altogether black, scutellum black. 9 millim. — Bengal (Pl. 2, fig. 16a—c) *antennatus* nov. spec.
- 16. Head and prothorax red, elytra black. $8\frac{1}{2}-9$ millim. — New Guinea (Pl. 1, fig. 11) *rossianus* nov. spec.
- (no alternative)
- 17. Length over $8\frac{1}{2}$ millim. 18
- Length under $7\frac{1}{2}$ millim. 20
- 18. Prothorax red, base up to the constriction black, scutellum black. $9-9\frac{1}{2}$ millim. — Cambodja, Philippines, Java (Pl. 1, fig. 12, 13, 14) *distortus* Gorh.
- Prothorax altogether red 19
- 19. Head red or brownish, sometimes blackish, scutellum red, head and prothorax finely and dispersely punctate. $8-11$ millim. — India, Sumatra, Java *Weyersi* Kraatz
- Head black or reddish, scutellum black, punctuation on head and prothorax coarser and denser. $9\frac{1}{2}-10$ millim. — Philippines ...
..... *mindanensis* Chapin
- 20. Suture of clypeus emarginate, front of the head with two impressions. $7\frac{1}{2}-8$ millim. — Philippines *clypealis* Chapin
- Suture of clypeus rounded, in the middle projecting forward, no impression on the front. $7\frac{1}{2}$ millim. Luzon *vicinus* Chapin
- 21. Antennae in the ♂ ♂ broader, more robustly serrate, their segments broader triangular, towards their apices emarginate, acute 22
- Antennae in the ♂ ♂ narrower, less sharply serrate 23
- 22. Antennae black, first segment brownish; elytra rounded at the apex. $8\frac{1}{2}-9$ millim. — Singapore, Java, Manila (Pl. 2, fig. 19) *sanguinicornis* Spin.
- Antennae longer, yellowish, last segment brownish; elytra at apex cut off straight with rounded edges. — Formosa (Pl. 1, fig. 15) *pallidicornis* nov. spec.
- 23. Larger species, antennae black. $11-15$ millim. — Formosa
..... *Sauteri* Schenklg.
- Smaller species. $5\frac{1}{2}-10$ millim. 24
- 24. Antennae altogether bright red, as long as the prothorax alone*); punctate striae on the elytra reaching to $\frac{2}{3}$ of the

*) This is what Gorham says in his description. We do not know this species de visu.

- length. 8—9 millim. — Manipur *ruficornis* Gorh.
- Antennae altogether black; head between the eyes with a small furrow; punctate striae reaching to $\frac{2}{3}$ of the length. $6\frac{1}{2}$ millim. — Timor *ruficollis* Kuw.
- Antennae black, first or first two segments reddish 25
25. Larger species, prothorax red with the base up to the constriction black (typical form) or prothorax altogether red (ab. *rufithorax* Pic). $8\frac{1}{2}$ —9 millim. — Ceylon, Madura (India), Tonkin, Laos, Sumatra, Java (Pl. 2, fig. 20, 21) *bicoloricollis* Pic
- Smaller species, 6— $7\frac{1}{2}$ millim. 26
- Very small species, head and prothorax rather densely and tolerably strongly punctate; head between the eyes with a faintly indicated impression. 5 millim. — Yunnan *yunnanus* nov. spec.
26. Punctuation on head and prothorax extremely fine and disperse, in the anterior part of the prothorax somewhat more distinct and dense. (Sometimes the prothorax is darkened in the middle). 6— $7\frac{1}{2}$ millim. — Japan, India (= *strangulatus* Kiesw., nec Chevr.) *obeliscus* Lewis
- Punctuation on head and prothorax fine and dense, towards front and sides of the pronotum denser and coarser; elytra black with or without red shoulders; prothorax eventually reddish with black base; sometimes head and prothorax are for the greater part black (see also the species with black prothorax: sub 9). 6— $6\frac{1}{2}$ millim. — Birma, Manipur, Yunnan *attenuatus* Gorh.
- Punctuation on head and prothorax rather coarse and rather disperse. Described as a black species, but head and prothorax can often be reddish (see also the species with black prothorax: sub 9). $6\frac{1}{2}$ millim. — Philippines *bacillus* Heller

